

LISTING OF CLAIMS

1. (Previously Presented) A method of increasing an immune response to an opportunistic infection in an immunocompromised subject comprising

- selecting an immunocompromised subject infected with a secondary infection;
- administering to the immunocompromised subject infected with the secondary infection a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide, wherein the D oligodeoxynucleotide is at least 18 nucleotides to about 30 nucleotides in length and comprises a sequence represented by the following formula:

5' X₁X₂X₃ Pu₁ Py₂ CpG Pu₃ Py₄ X₄X₅X₆(W)_M(G)_N-3' (SEQ ID NO : 22)

wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10; and

- assessing the immune response to the secondary infection in the subject;
- thereby increasing the response to the secondary infection in the immunocompromised subject.

2. (Previously Presented) The method of claim 1, wherein the subject is immunocompromised as a result of an infection with human immunodeficiency virus (HIV) or a simian immunodeficiency virus.

3. (Canceled)

4. (Previously Presented) The method of claim 2, wherein the human immunodeficiency virus is HIV-1.

5. (Previously Presented) The method of claim 2, wherein the human immunodeficiency virus is HIV-2.

6. (Original) The method of claim 1, wherein the subject has acquired immune deficiency syndrome (AIDS).

7. (Canceled)
8. (Previously Presented) The method of claim 1, wherein N is 6.
9. (Previously Presented) The method of claim 1, wherein Pu_1 Py_2 CpG Pu_3 Py_4 comprises phosphodiester bases.
10. (Previously Presented) The method of claim 1, wherein Pu_1 Py_2 CpG Pu_3 Py_4 are phosphodiester bases.
11. (Previously Presented) The method of claim 1, wherein $X_1X_2X_3$ and $X_4X_5X_6(W)_M(G)_N$ comprise phosphodiester bases.
12. (Currently Amended) The method of claim 1, wherein $X_1X_2X_3$ comprises one or more ~~phosphothioate~~ phosphorothioate bases.
13. (Currently Amended) The method of claim 1, wherein $X_4X_5X_6(W)_M(G)_N$ comprises one or more ~~phosphothioate~~ phosphorothioate bases.
14. (Previously Presented) The method of claim 1, wherein $X_1X_2X_3$ Pu_1Py_2 and Pu_3 Py_4 $X_4X_5X_6$ are self complementary.
15. (Previously Presented) The method of claim 1, wherein the secondary infection is a bacterial infection, a fungal infection, a viral infection, a protozoan infection, a prion disease, or a neoplasm.
16. (Previously Presented) The method of claim 1, wherein the secondary infection is infection with *Leishmania*.
17. (Currently Amended) The method of claim 1, wherein the secondary infection is salmonellosis, syphilis, neurosyphilis, ~~tuberculosis~~ tuberculosis, atypical mycobacterial

infection, bacillary angiomatosis, aspergillosis, candidiasis, coccidioidomycosis, cryptococcal meningitis, hepatitis B, histoplasmosis, cryptosporidiosis, isosporiasis, microsporidiosis, *Pneumocystis Carinii* pneumonia, toxoplasmosis, *Cytomegalovirus*, hepatitis, herpes simplex, herpes zoster, human papilloma-papilloma virus, *Molluscum Contagiosum*, oral hairy leukoplakia, progressive multifocal leukoencephalopathy, Kaposi's sarcoma, systemic non-Hodgkin's lymphoma, or primary CNS lymphoma.

18. (Previously Presented) The method of claim 4, further comprising administering to the subject a combination of drugs which comprises a highly active anti-retroviral therapy (HAART).

19. (Original) The method of claim 2, further comprising administering an anti-retroviral drug.

20. (Previously Presented) The method of claim 19, wherein the anti-retroviral drug comprises 3'-azido-3'-dexoy-thymidine (AZT).

21. (Original) The method of claim 1, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16.

22-24. (Canceled)

25. (Previously Presented) A method of increasing an immune response to an opportunistic infection with a pathogen in an immunocompromised subject, comprising
selecting an immunocompromised subject wherein the subject is immunocompromised as a result of an infection with a human immunodeficiency virus; and
administering to the subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide,

wherein an antigenic epitope of a polypeptide from the pathogen is not administered to the subject,
thereby increasing the response to the opportunistic infection.

26. (Currently Amended) The method of claim 1, wherein the oligodeoxynucleotide ~~has~~ comprises the nucleic acid sequence set forth as 5'XXTGCATCGATGCAGGGGGG 3' (SEQ ID NO: 1), wherein X is a G.

27. (Previously Presented) The method of claim 1, wherein the oligodeoxynucleotide consists of the nucleic acid sequence set forth as SEQ ID NO: 177.

28. (Previously Presented) The method of claim 25, wherein the pathogen is *Listeria*.

29. (Previously Presented) The method of claim 25, wherein the D oligodeoxynucleotide consists of the nucleotide sequence set forth as SEQ ID NO: 177.

30. (Previously Presented) The method of claim 1, wherein the subject is immunocompromised as a result of chronic granulomatous disease.

31. (Previously Presented) The method of claim 2, wherein the D oligodeoxynucleotide consists of the nucleotide sequence set forth as SEQ ID NO: 177.

32. (Previously Presented) The method of claim 31, wherein the wherein the subject is immunocompromised as a result of an infection with a human immunodeficiency virus.

33. (Previously Presented) The method of claim 1, wherein the secondary infection is hepatitis B, and wherein evaluating the immune response comprises evaluating an immune response to a hepatitis B antigen.

34. (Currently Amended) The method of claim 1, wherein evaluating an immune response to a hepatitis B antigen comprises determining an amount of antibodies to ~~hepatitis~~ hepatitis B in the serum of the subject.